

CLAIMS:

1. A holographic recording and reproducing method for recording
holographic data in and reproducing holographic data from a holographic
5 recording medium comprising at least a recording layer in which data are
to be recorded as phase information of light by projecting a signal beam
and a reference beam thereonto, a beam spot incidence region for the
signal beam and the reference beam disposed on the opposite side of the
recording layer as viewed in the direction of signal beam and reference
10 beam incidence on the holographic recording medium and a filter region
formed in at least a part of a periphery of the beam spot incidence region,
the holographic recording and reproducing method comprising steps of
setting a beam spot diameter of the signal beam or the reference beam at a
diffraction limit thereof equal to or smaller than a minimum width of the
15 beam spot incidence region and projecting the signal beam or the reference
beam onto the holographic recording medium.
2. A holographic recording and reproducing method in accordance with
Claim 1, wherein the beam spot incidence region and the filter region have
20 different optical constants from each other.
3. A holographic recording and reproducing method in accordance with
Claim 1, wherein the beam spot incidence region is constituted as a
reflection region of the signal beam and the reference beam, and the filter
25 region is constituted as an absorption region of the signal beam and the
reference beam.

4. A holographic recording and reproducing method in accordance with Claim 2, wherein the beam spot incidence region is constituted as a reflection region of the signal beam and the reference beam, and the filter region is constituted as an absorption region of the signal beam and the reference beam.

5. A holographic recording medium comprising at least a recording layer in which data are to be recorded as phase information of light by projecting a signal beam and a reference beam thereonto, a beam spot incidence region of the signal beam and the reference beam disposed on the opposite side of the recording layer as viewed in the direction of signal beam and reference beam incidence on the holographic recording medium and a filter region formed in at least a part of a periphery of the beam spot incidence region, a minimum width of the beam spot incidence region being set equal to or larger than a beam spot diameter of the signal beam or the reference beam at a diffraction limit thereof.

6. A holographic recording medium in accordance with Claim 5, wherein the beam spot incidence region and the filter region have different optical constants from each other.

7. A holographic recording medium in accordance with Claim 5, wherein the beam spot incidence region is constituted as a reflection region of the signal beam and the reference beam, and the filter region is constituted as an absorption region of the signal beam and the reference beam.

8. A holographic recording medium in accordance with Claim 6,
wherein the beam spot incidence region is constituted as a reflection region
of the signal beam and the reference beam, and the filter region is
constituted as an absorption region of the signal beam and the reference
5 beam.

9. A holographic recording medium comprising at least a recording
layer in which data are to be recorded as phase information of light by
projecting a signal beam and a reference beam thereonto, a reflective
10 surface disposed on the opposite side of the recording layer as viewed in
the direction of signal beam and reference beam incidence on the
holographic recording medium and formed with a convex pattern or a
concave pattern having a trapezoidal cross-section, a minimum width of a
convex surface of the convex pattern or a concave surface of the concave
15 pattern being set equal to or larger than a beam spot diameter of the signal
beam or the reference beam at a diffraction limit thereof.

10. A holographic recording medium in accordance with Claim 9,
wherein the convex surface of the convex pattern or the concave surface of
20 the concave pattern is shaped substantially circular in the direction of the
signal beam or the reference beam incident on the holographic recording
medium.

11. A holographic recording medium in accordance with Claim 9,
25 wherein the convex surface of the convex pattern or the concave surface of
the concave pattern is shaped to be band-like in the direction of the signal
beam or the reference beam incident on the holographic recording medium.